UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
SUPERFUND SITE STRATEGY RECOMMENDATION - REGION 06

Site Name: Jackpile-Paguate UraniumMine **CERCLIS ID#:** NM000607033

Alias Site Name:

Address: SR 279, Near Paguate, Laguna Pueblo

City/County or Parish/State/Zip: Paguate, Cibola County, New Mexico

Report Type: PA **Date:** April 2010 **Author:** Weston

RECOMMENDATION:

☐ 1. No Further Remedial Action Planned Under Superfund (NFRAP)

☒ 2. Further Investigation Needed Under Superfund
- ☐ PA ☐ HRS Priority: ☐ High
- ☒ SI ☐ RI/FS ☐ Low
- ☐ ESI ☐ RA
- ☐ Other:

To be performed by:

☐ 3. Action Deferred to: ☐ RCRA ☐ NRC

☐ 4. Site Being Addressed Under the State Voluntary Cleanup Program (VCP): ☐ Yes ☐ No

NOTIFY AUTHORITY:

☐ Removal	☐ RCRA	☐ TSCA	☐ CAA	☐ SMCRA
☐ Remedial	☒ State/Tribe	☐ NPDES	☐ NRC	☐ Resource Trustee:
☐ CERCLA Enforcement	☐ Federal Facility	☐ UIC	☐ SPCC	☐ Other:

SEND SSSR COPIES TO: ☐ 6SF-AC ☐ 6WQ-SP ☐ ATSDR ☐ State Agency ☒ Tribal Agency

DISCUSSION:

The Jackpile-Paguate Uranium Mine site is located on Laguna Pueblo about 40 miles west of Albuquerque in Paguate, Cibola County, New Mexico. The facility is located in an area of canyons and arroyos to the east of the village of Paguate. The property on which the former uranium mine is located is approximately 7,868 acres in size. Approximately 2,656 acres of this property were disturbed and contained three open pits that were between 200 and 300 feet deep, 32 waste dumps, and 33 proto-ore stockpiles.

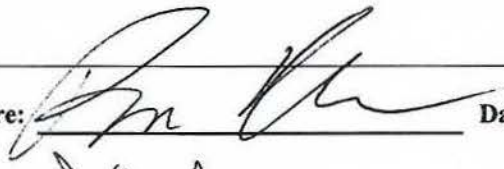
The mine was operated by Anaconda Minerals Company. Mining operations were conducted from 1953 through March 1982. The mine was closed because of depressed uranium mining conditions. During the 29 years of mining, approximately 400 million tons of rocks were moved within the mine area and approximately 25 million tons of uranium ore were transported via the Santa Fe Railroad from the mine to Anaconda's Bluewater Mill, approximately 40 miles west of the site. Primary contaminants present in on-site sources include uranium (U-234, U-235, & U-238) arsenic, barium, chromium, cobalt, copper, lead, manganese, vanadium, selenium and zinc. Concentrations of U-238 in surface water immediately downstream of the mine are as high as 448 ppb, well above the 2.6 ppb benchmark.

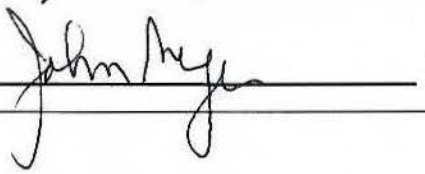
The Pueblo of Laguna, BLM, BIA and Anaconda/ARCO entered into an agreement for site remediation in 1986. To date reclamation has been primarily the covering of mine waste and contouring. In June 1995 the Jackpile Reclamation Project was officially completed. In September 2007, a ROD Compliance Assessment for Jackpile-Paguate Uranium Mine was performed to determine if the post-reclamation had met the requirements of the Environmental Impact Statement and Record of Decision. This report identified several non-compliant and potentially non-compliant issues still needed to be

addressed. Despite the reclamation of the surficial mine areas, releases from the mine are still occurring. The Pueblo of Laguna asked EPA to consider the site for the NPL.

As part of this PA, sources, ground water, surface water and air pathways were evaluated. The uranium mine was identified as the sole source on-site. Previous releases to both ground water and surface water has been documented. Groundwater wells analytical results contained fluoride, lead, arsenic, gross alpha, uranium, and Radium-226 above EPA MCLs. The closest drinking water well identified was 2.492 miles north of the site. All other nearby wells were identified to the north. Groundwater flow from the site is to the south southwest. Previous sampling of the surface water pathway revealed analytical results that contained gross alpha and uranium above EPA MCLs and manganese above secondary drinking water standards. There is no overland flow segment from the source to the in-water segments. The Rio Moquino and Rio Paguate bisect the mine and are in direct contact with the source. Elevated levels of Isotopic Uranium have been detected in the surface waters of the Rio Paguate and in the Paguate Reservoir. Fishing has been documented at the reservoir and down stream in the Rio San Jose. The levels of Isotopic Uranium could have an impact on Traditional/Cultural and Ceremonial uses of surface water bodies below the convergence of the Rio Paguate. Based on this information, further evaluation of the surface water pathway appears to be warranted. Based on the review of the PA it is recommended that a SI be conducted to further characterize the mine and to further evaluate the surface water pathway.

APPROVALS:

Report Reviewed by: Brenda Nixon Cook (Site Assessment Manager) **Signature:**  **Date:** 11/24/2010

Disposition Approved by: John Meyer (Section Chief 6SF-TR) **Signature:**  **Date:** 11/29/10